



SHELL
EDUCATION

SUCCESSFUL CENTERS

Standards-Based
Learning Centers **that Work**

Levels
Pre-
K-1



a b

a



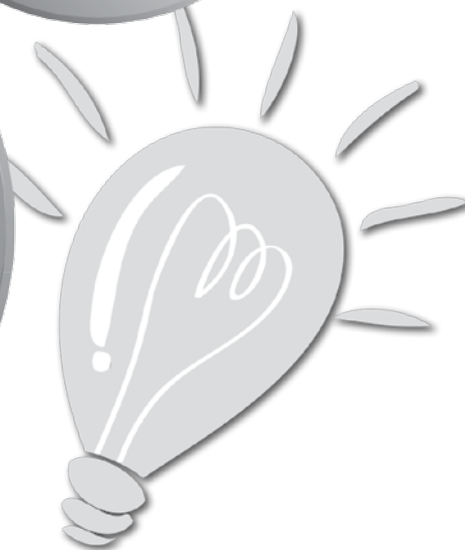
c



Lisa B. Fiore

SUCCESSFUL CENTERS

Standards-Based
Learning Centers that *Work*



Author
Lisa B. Fiore, Ph.D.



SHELL EDUCATION



Consultant

Tiffany Fadin, M.A.Ed.
Teacher and Reading Specialist

Publishing Credits

Robin Erickson, *Production Director*; Lee Aucoin, *Creative Director*;
Timothy J. Bradley, *Illustration Manager*; Sara Johnson, M.S.Ed., *Editorial Director*;
Jennifer Viñas, *Editor*; Grace Alba, *Designer*; Corinne Burton, M.A.Ed., *Publisher*

Image Credits

all images Shutterstock

Shell Education

5301 Oceanus Drive
Huntington Beach, CA 92649-1030
<http://www.shelleducation.com>

ISBN 978-1-4258-1019-1

© 2014 Shell Education Publishing, Inc.

The classroom teacher may reproduce copies of materials in this book for classroom use only. The reproduction of any part for an entire school or school system is strictly prohibited. No part of this publication may be transmitted, stored, or recorded in any form without written permission from the publisher.



Table of Contents

Introduction and Research	4
Success at the Center	4
Creating a Classroom Culture	6
Players and Protagonists	10
Attitude	11
Managing Learning Centers	12
Assessment	15
Looking, Listening, and Learning	16
Documentation	16
Active Listening	18
Technology	18
Connections to Standards	19
Reflection	20
How to Use This Book	22
Correlation to Standards	24
Standards Correlation Chart	25
Math Centers	30
Language and Literacy Centers	51
Science Centers	80
Social Studies Centers	101
Art Centers	136
Music Centers	156
Mystery Centers	171
Appendix A: References Cited	192
Appendix B: Recommended Resources	194
Appendix C: Center Resources	198
Appendix D: Digital Resources	208

Introduction and Research

.....

A major reason that we have not become extinct is that we play...we are good at lots of things rather than expert at just a few.

—Bob Hughes (2012)

Success at the Center

In recent years, teaching professionals have found themselves to be working in an exciting yet challenging climate for teachers of young children—when “success” is often measured in test scores, and children and teachers find themselves in a competitive climate, “racing to the top.” It is not always easy to focus on what is developmentally appropriate for young children when pressures for children to learn academic skills contradict over 100 years of research about how children learn. Early childhood educators inherently know what matters most to children in the classroom, and it can be summed up as a love of learning and strong, trusting relationships (Fiore 2012). These powerful relationships exist as mutual, bidirectional relationships between teachers, children, and components of the classroom environment, and extend to families and the broader community. Early childhood educators also know that keeping these values at the center of early childhood educational experiences is the best way to ensure success for all learners.

So what exactly *are* learning centers? For the purposes of this book, learning centers are both physical and intellectual spaces. In terms of physical spaces, learning centers are indeed small areas in a classroom that are designated for specific, focused learning. For example, a carpeted area in the classroom might be the permanent Block Center, deemed so primarily because the carpeting helps to ensure that the block play noise is muffled to some extent. In terms of intellectual spaces, learning centers have no bounds—they are limited only by the creativity that teachers and children bring into the classroom on a daily basis. In other words, learning centers are significant because they relate to children’s interests, motivation, and stages of development. Learning centers complement concepts and activities that children have experienced in other classroom lessons, yet they allow children to be the driving forces behind the depth and extension of the learning experiences. For example, the birth of a new sibling for one child might launch a hospital center that can bridge science, literacy, math, art, and music curricula. The centers invite children to engage with appropriate materials and enable them to explore and work independently or with partners or small groups as active learners.

This book focuses on learning centers, not simply as distinct areas of a classroom, but representative of a fundamental approach to teaching and learning that places children at the core. It recognizes the important and complex roles of the teacher: as guide, co-learner, and key source of support. The first sections of this book define learning centers, and describe the importance of them in the context of children’s development—cognitive, social, and physical. Keeping success at the center of planning does not require prescribed, teacher-directed activities with predetermined outcomes. This book provides 70 activities that capitalize on the wisdom of teachers. Furthermore, these activities help nurture a teacher disposition that welcomes a balance between decision making and possibilities as well as the challenges associated with incorporating effective learning center experiences.

Introduction and Research (cont.)

For teachers, striking a balance in early childhood classrooms involves keeping an eye toward the future, knowing children's developmental pathways and what they will be expected to achieve in subsequent years, and staying grounded in the moment, noticing where children are as individuals and members of the larger group. The adoption of the Common Core State Standards in virtually all of the American states has prompted educators to form new and different associations with the term "the core" (Gewertz 2012), when early childhood educators instinctively associate "core" with "heart," "central," or "most important." It is one thing to know about child development but quite another to provide children with classroom activities that promote problem solving, interpersonal skill development and practice, and responsibility.

Some of the big questions addressed in this book are:

- How can centers be used to nurture children's emerging interests and also meet required standards?
- How can teachers mine the "mess" and articulate the skills that develop out of everyday experiences?
- How can teachers best communicate with families about the merits of play-based activities?

Learning centers provide opportunities for teachers to work with children in authentic, meaningful ways, keeping children hands-on and engaged at the center. The activities in this book are the result of much collaboration, conversation, and observation. Learning centers complement curriculum for early childhood teachers who consider children to be active, curious, and competent and know that "joy and learning are not at opposite ends of the teaching spectrum" (Fiore 2012, xii). In many cases the learning centers *become* the curriculum in a supportive environment.

This book translates important theoretical and philosophical foundations of early childhood education through concrete center activities across a range of content areas. For example, all child development courses emphasize theories about the ways children actively construct learning and the value of social interactions with peers and others. Building upon theories and approaches to documenting young children, such as the Reggio Emilia approach to early childhood education, teachers can examine measures of accountability and strengthen their understanding of mindful, flexible, and creative teaching—recognizing the power of ordinary, sometimes messy moments of learning and extending the experiences for children, families, and others in the community.



Introduction and Research (cont.)

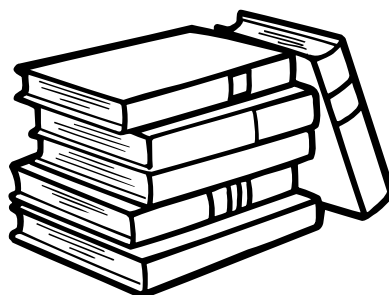
Creating a Classroom Culture

Whether we use the word *curious*, *inquisitive*, *flexible*, or *supportive*, there is no doubt that early childhood educators recognize the qualities of a strong teacher. These same qualities can be used to describe young children and can be nurtured in effective classroom environments that highlight the importance of letting children follow their instincts, test their own hypotheses, and experience learning on their own terms. As mentioned previously, many teachers experience a tension in their classroom setting that hinders such effective activity—tension between the powerful pressure of accountability and the desire to allow children freedom to explore and time to follow their ideas. Indeed, teachers are responsible for guiding children’s thinking so that they are able to reach new milestones and levels of understanding. Teachers are also responsible for guiding and sustaining a healthy and productive classroom culture. When milestones and guidelines for experiences become more like benchmarks that must be met, teachers, administrators, and families grow increasingly concerned about children “making the grade” at earlier ages.

A classroom culture that incorporates learning centers is more than simply arranging furniture in separate parts of the room so that curriculum may be taught at distinct tables. Setting goals and measuring outcomes are intrinsically woven into the fabric of the environment, and the activities and materials at each center must be thoughtfully selected so that every member of the class is exposed to developmentally appropriate, culturally sensitive experiences:

The climate is one in which “learning is cool,” worth engaging in, and everyone—teacher and students—is involved in the process of learning. It is a climate in which it is okay to acknowledge that the process of learning is rarely linear, requires commitment and investment of effort, and has many ups and downs in knowing, not knowing, and in building confidence that we *can* know. It is a climate in which error is welcomed, in which student questioning is high, in which engagement is the norm, and in which students gain reputations as effective learners (Hattie 2012, 26).

It is important to note that a classroom culture that incorporates learning centers does not run counter to legislative mandates. District, state, and/or federal curriculum objectives can certainly guide activities that early childhood learners experience. Specific tasks that are featured at distinct centers should include tasks that lend themselves to the development of skills and understandings deemed appropriate for a grade level. The systematic use of learning centers helps teachers and children bring learning goals together in developmentally appropriate ways.



Introduction and Research (cont.)

Early childhood classrooms often include a variety of learning centers. Teachers can strike a balance between permanent centers such as art and math and thematic centers that grow out of children's specific interests and therefore change over time. This book integrates learning across curricula in that permanent centers may anchor some desired learning outcomes yet provide opportunities for children to strengthen skills through activities that are not limited to one exclusive domain. For example, the math center may include a computer that children use to type math news stories. Thus, children are gaining literacy skills while focusing on math concepts. The classroom culture supports clear expectations for learning center activities, but the centers are not simply areas for children to complete closed-ended exercises. Research has shown that "the best and most productive centers involve open-ended inquiry" (Fountas and Pinnell 1996, 49).

The open-ended quality of learning center experiences contained in this book relieves teachers of the pressure to develop new lessons and activities every day. The classroom culture shapes the use of the learning centers and supports routines that children come to master. Young children learn how to access and explore the materials, and teachers are therefore able to focus their attention in numerous ways. The centers listed below are highlighted in this book but are not intended to represent a definitive list of possible learning centers. Some features of each center are included here, and will be discussed in greater detail in the sections that follow.

Center Type	This center supports understanding and development of:	
Math	• attributes of objects • patterns • seriation • classification	• matching • concept of number • sequence • math vocabulary
Language and Literacy	• concepts of print • concepts of writing • foundations for reading • books and publishing • poetry • language and vocabulary development	• storytelling • plot/sequence • characters • mastery with writing tools and paper

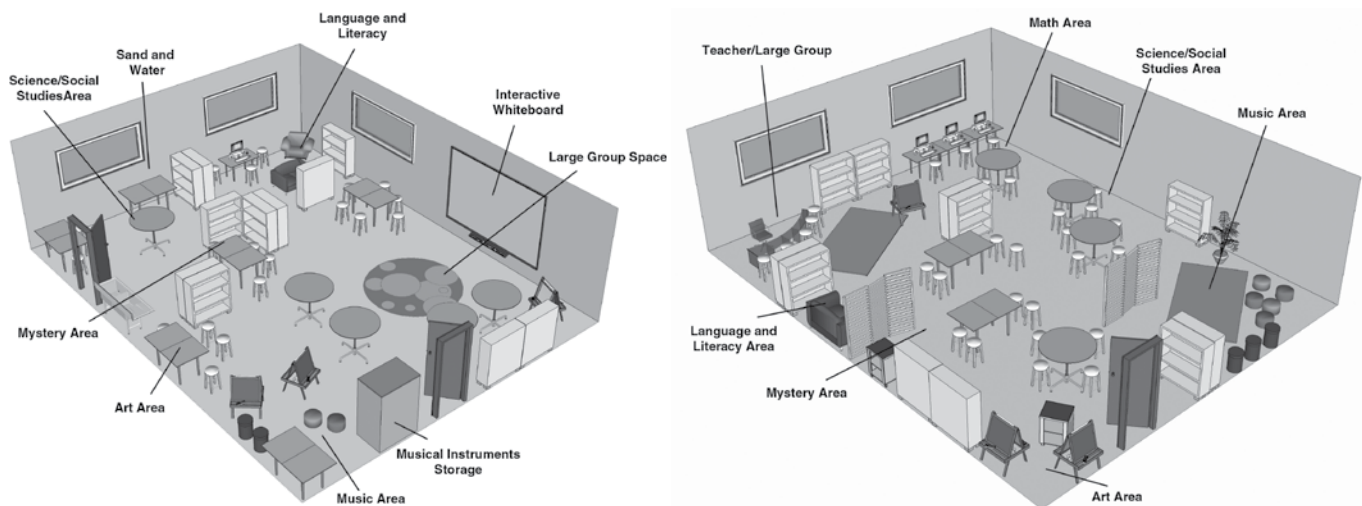
Introduction and Research (cont.)

Center Type	This center supports understanding and development of:
Science	• science concepts • connections with nature • problem solving • scientific thinking • delay of gratification • cause and effect • living vs. nonliving things
Social Studies	• appreciation of diversity • time, chronology, and sequence • maps and geography • citizenship and responsibility
Art	• fine-motor skills • art concepts • self-expression • creative expression
Music	• appreciation of different styles of music • singing • music concepts • rhythm and rhyme • aural discrimination
Mystery	• mindfulness • resilience • empathy • self-regulation • personal strengths • creativity

Introduction and Research *(cont.)*

Fortunately, most early childhood classrooms are designed in a manner that supports the use of learning centers. Most early childhood classrooms do not feature rows or clusters of desks where children are expected to sit for extended periods of time while the teacher stands at the front of the room imparting jewels of wisdom. Sadly, as pressures relating to accountability for teachers and schools have increased, many Pre-K and kindergarten classrooms have become “...devoid of materials, eerily silent, where children sit as teachers drill them on facts from a prescribed curriculum. Classrooms where teachers spend long hours testing individual children at a computer while the rest of the class sit copying from the board—no talking” (Carlsson-Paige 2012).

The following examples provide two different classroom layouts for your consideration. While you will note the placement of specific learning centers, it is perfectly acceptable, and even desirable, to move the location of specific centers throughout the year. As you introduce specific centers to children, a flexible approach to the classroom design will serve you and the children well. It has also been shown that supportive classroom environments directly impact the brain through production of serotonin and dopamine, which “play a crucial part in how students feel and learn” (Biller 2003, 25).



Over the course of a school year, as you develop a richer understanding of the members of the classroom, learning centers will provide countless opportunities for children to learn with and from their peers in a nonjudgmental way. In the section that follows, we will consider the relationship between learning centers and the major players in early childhood classrooms.

Introduction and Research (cont.)

Players and Protagonists

Seasoned early childhood teachers are used to questions from parents and caregivers that sound something like this: “When are children going to do some real learning?”

Of course these questions often come on the heels of numerous exchanges between adults and children that sound something like this:

Adult: “What did you do at school today?”

Child: “Nothing. We just played.”

The discomfort or unease that caregivers feel when they are worried that playing means “not learning” is similar to the discomfort that teachers may initially feel when they hear that learning centers are based in play and that children are therefore the primary players. The Reggio Emilia approach to early childhood education (inspired by the work of early childhood educators in Reggio Emilia, Italy), considered by a growing number of educators around the world to be “the gold standard for quality early childhood education” (New 2007, 1), and at the core of the best schools in the world for young children (Kantrowitz and Wingert 1991), is anchored in several key concepts. One of those concepts is that children are “protagonists” in their own growth and learning. That is, they are powerful and capable and are active constructors of their own learning (Edwards, Gandini, and Forman 2011). Seen in this light, children’s play takes on a different meaning—it is not that children learn in spite of play, but that they learn *through* play. Play is important for children’s development of symbolic thinking, self-regulation, and empathy as well as skills in math and literacy and is the thread that is woven throughout the center-based activities in this book.

When families are acknowledged as partners in their children’s education, they are often more receptive to teachers’ decisions about curriculum and understand teachers’ respect for play as a fundamental resource of childhood. Researchers have underscored the need for play in children’s development, citing it as “the delicate dance of childhood that strengthens the mind and body, and nourishes the soul” (Frost 2010, xviii), recognized throughout human evolution as “a deep and irresistible urge to explore, experiment with, and have knowledge of the world, the universe, and everything” (Hughes 2012, 80).

Thoughtful design and implementation of classroom center experiences paired with thoughtful assessment and communication with families can bridge the gap between mandated goals set for young children and developmentally appropriate practices. For example, educators of young children recognize that play is a core resource of childhood (Carlsson-Paige 2009; Meier, Engel, and Taylor 2010), and that play is sometimes messy. While some people are uncomfortable with mess and consider play to be merely frivolous, advocates for young children possess an attitude that supports play in all of its forms as crucial to development (Henig 2008).

Introduction and Research *(cont.)*

Attitude

As we consider engaging children in center activities, it is also important to recognize the role of adult support in the design of learning center activities for young children and the impact of teachers' attitudes on children's learning experiences and developing self-concepts. For example, some teachers worry that the noise level in their classrooms will be too high if children are at learning centers. Clearly, every teacher has a different personal level of tolerance for noise and activity. Rather than dismiss learning centers as too noisy or potentially disruptive, teachers can employ simple strategies to help reduce the classroom noise level, such as limiting the number of students working together at each center. The social benefits that children gain from learning to take turns, negotiating for resources, and taking another's perspective are reflected in their enjoyment and engagement. Teachers may find that there are strategic reasons for pairing students rather than grouping them in threes and fours. "When there are just two students, each has to do a bigger share of the work and the thinking" (Diller 2011, 9). Children remain actively involved in their own learning, and the positive experiences reinforce their engagement, which has been shown to lead to longer attention spans and greater retention of material (Prince 2004, 93).

Early childhood teachers who are required to cover specific mandated curricula can structure activities at specific learning centers (e.g., math, literacy, art, music, science) that complement classroom curricula. The flexibility afforded by the use of learning centers provides natural opportunities for extending and enhancing classroom learning, while honoring children's individual learning styles, interests, and abilities. A respect for children's individual needs is matched by teachers' decisions about specific activities at the learning centers. However, it is important to note the following:

"A pedagogy of fairness is not to be confused with more familiar goals in early childhood education, such as sharing and cooperation. These are important civic standards of classroom life, of course, but they are outcomes of fair teaching, not one and the same. Fair teaching encompasses all that honors young children's need to be sought out and valued, to be remembered, by the teacher and the group regardless of their race, gender, popularity, or developmental difference (Cooper 2011, 94)."

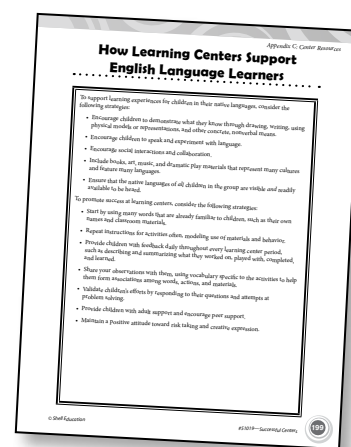
Above all else, children's thinking must be challenged and their hearts and minds must be stimulated. Since most classrooms accommodate children from varied backgrounds and developmental levels, understanding children in the class helps determine the variety of learning centers, activities, and materials that are most appropriate year to year for each unique group.



Introduction and Research (cont.)

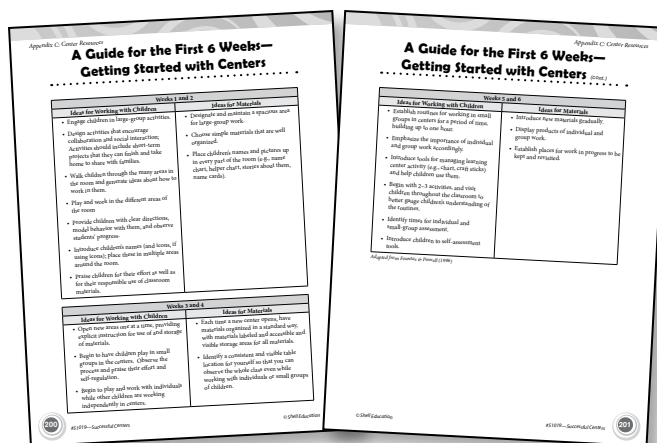
One of the most common concerns for early childhood teachers is how to support English language learners in the classroom. Effective early childhood teachers possess a strong desire to respect and nurture children's native languages while simultaneously helping children develop strong English skills. Most teachers of young children receive little to no explicit instruction in skills and strategies to help children who are English language learners, yet a supportive attitude goes a long way in helping children navigate classroom curriculum. Page 199 features ways that learning centers may contribute to success for children who are English language learners—in the classroom as well as in their own beliefs about themselves as capable learners.

At a basic level, learning centers promote cooperation among children who may choose oral and/or written language to express their ideas, solve problems, and communicate with peers. Learning center experiences provide authentic opportunities for children that standardized curriculum may not provide, such as building associations between objects and new vocabulary words and taking risks when speaking with peers. By providing real items and natural materials, teachers promote children's mastery over concepts and encourage participation. Teachers' beliefs in and commitments to students have tremendous effects on children's achievement. Young children are most eager to demonstrate their competence when presented with thoughtfully designed learning challenges.



Managing Learning Centers

The word *managing* is a bit misleading, because it may evoke an assumption that the teacher is the sole manager. Effective early childhood teachers know that children should not be expected to take sole responsibility for their learning center experiences. Teachers must always provide quality instruction, and they connect this work with increasing opportunities for independent practice among small groups of children. Over time, however, children and teachers become co-managers of the learning centers. In a supportive classroom climate, the desire to maintain engaging learning centers is shared among all class members, and the investment in choice of activities and themes is strong, almost second nature. For a list of suggestions for gradually incorporating learning centers into the classroom, see pages 200–201.



Introduction and Research (cont.)

Young children experience very few instances when they are in control of their choices. Throughout the course of a given day, teachers and caregivers choose for children what time to wake up, which clothes to wear, which foods to eat (or avoid), what activities to engage in, and when to rest. Developmental theorists recognize the struggles that naturally occur between the growing child and caregivers as children's cognitive and physical development enables them to accomplish more tasks. Learning centers provide children opportunities to exercise informed decision making and to realize the consequences of their actions and inaction, as the case may be. Whether children choose the music center or the science center, the very act of making a selection allows them to see themselves as children who are in charge. Making choices at learning centers helps young children feel powerful and is a fundamental feature of a democratic society. Like freedom, imagination has no limits.

Why is this important? One reason is that when children feel a part of a group in which they are free to exercise their opinions and their choices are respected and supported, then the buy-in helps support the use of learning centers. The fact that children are expected to make their own decisions conveys to them that the teacher trusts their choices. This, in turn, serves to extend and reinforce curriculum and contributes to students' success. Research indicates that children who demonstrate an ability to plan and monitor their own behavior experience greater success in school. This self-regulation is evident in children's use of time and mastery or task completion.

Use of Time

The amount of time that early childhood teachers allocate for learning center activities varies depending on the school, the teacher, the agenda, and the children. At the beginning of the year, teachers may involve the children in primarily large-group activities, and over time, the amount of time shifts to include more independent learning center time. While children are gaining a better sense of classroom routines, a relatively short center time of approximately 10–15 minutes is important. The goal is to promote their sense of independence and familiarity with materials. A successful learning center time may be as simple as going to a center, engaging in an activity, and cleaning up when time is up. Once all learning centers have been introduced, center time may be adjusted to coincide with children's attention spans and the number of activities offered. When children are totally engaged in an activity, they are more likely to experience the completely focused, joyful learning that has been referred to as “flow” (Csikszentmihalyi 2008). Ideally, learning center times should reach 45 minutes to one hour in order for children to enjoy maximum involvement in play and to be free from pressures to hurry their choices.



Introduction and Research (cont.)

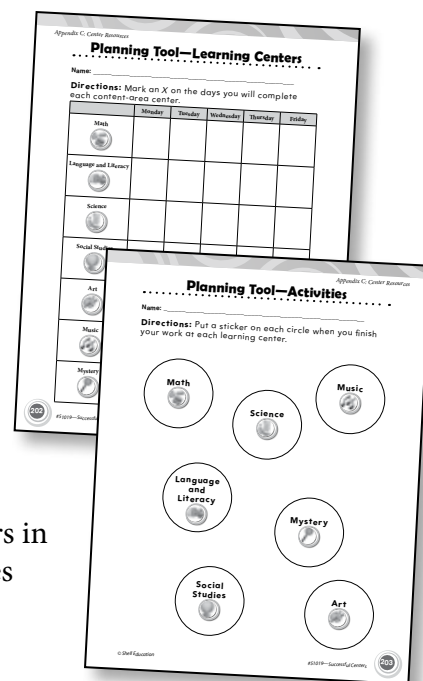
What *does* time mean to a young child, really? For many children, time can be measured in units that relate to their personal lives and experiences, such as the period between breakfast and snack time or the length of a favorite cartoon episode. To expect all children to regulate themselves according to a clock is not realistic, although some children may be able to tell time at a very young age, especially if using a digital clock. Teachers of young children try to develop strategies to help children pace themselves during a learning center time, such as five-minute warnings, a soft bell or other tone, and colored cards placed on the tables when it is time to finish up and move on. These types of simple techniques help children with their own pacing and mastery over the routine.

Mastery and Task Completion

For young children, habits of engagement are linked to their use of time. When children remain at a particular center, they are practicing their ability to focus on tasks and to collaborate with peers. They repeat some activities and learn to take reasonable risks as they attempt new activities. As children gain mastery over content through repetition of tasks and exposure to different tasks, they are better able to link specific skills to the application of the skill in their daily lives. Skills that are introduced in one center can be reinforced in a different center and in a thematic unit. Integrating aspects of various disciplines provides children with meaningful work, rather than boring, disconnected tasks to complete.

As noted previously, it is important for all children to experience a balance of activities. Formal and informal learning experiences should be used because some children learn better in structured activities. The greater the variety of centers, the more opportunity children have to exercise their preferences and develop self-awareness.

When children's learning styles and strengths are exercised, they are able to make connections between theory and application. Working in small groups encourages healthy tensions that lead to new and richer understandings and natural opportunities for differentiated instruction. For tools to help children and teachers plan and monitor children's use of various learning centers, see pages 202–203. At times, some children will prefer work in a parallel style, exploring materials and activities independently. Other times, such as when playing games with one to two peers, students will support and scaffold one another along the path to reaching their mutual goals. One result of children's successful completion of assigned tasks, which cannot be minimized, is that children view themselves as successful learners. Young children and teachers become partners in the learning process, with shared expectations and responsibilities for learning center content and customs.



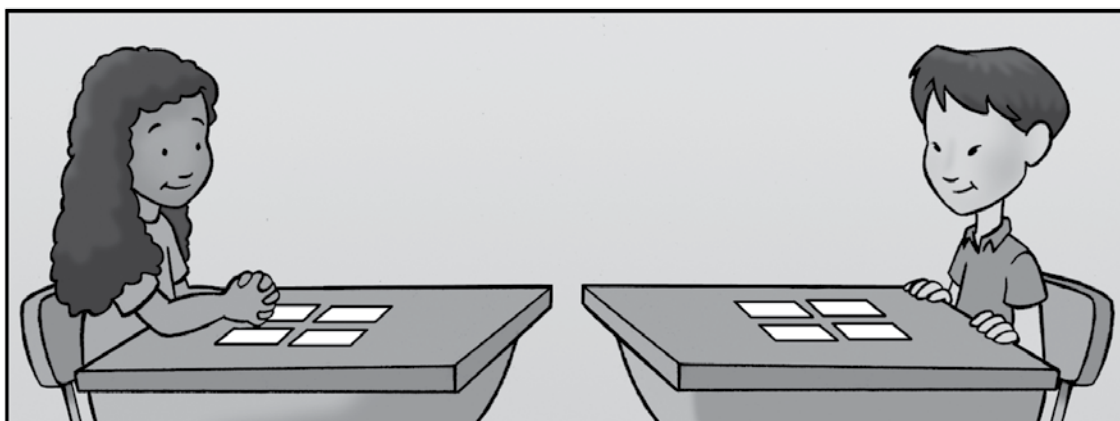
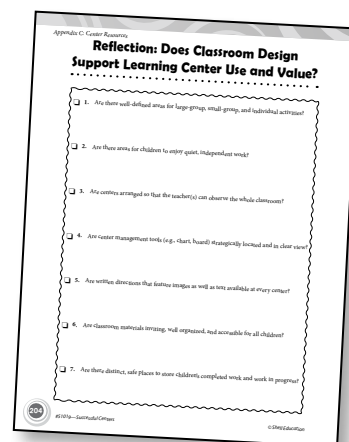
Introduction and Research (cont.)

Assessment

In a climate that reduces much of children's learning processes to measurable outcomes, the use of learning centers opens possibilities for teachers (and students) to support the needs of every member of the classroom. Instead of assessment being an added burden, teachers can use strategies for facilitating learning center use as methods of formative and summative evaluation. For example, the learning center assessment charts (pages 205–207) can be used to record children's progress through the various centers over the course of a week or several weeks. Teachers can note how long children spend at a particular learning center, whether children complete their tasks (successfully or unsuccessfully), which centers appeal to different children over time, which children tend to gravitate toward each other, and where conflict frequently lies. As a result of informal assessment, teachers can note how simple adjustments to the classroom environment can have a big impact on children's learning.

Taking a step back to assess the big picture, such as the classroom layout, is one simple way to assess how learning centers are being used and the value that they add to the classroom. To gain a sense of this big picture, see page 204.

By shifting from assessment of the environment to that of the individual child and small groups of children, valuable information can be gathered through simple observations. The sections that follow will provide suggested use of the activities and deeper discussion about watching, listening, and documenting as methods of assessing students' processes and products. A key component of successful assessment is exhibited in the attitude of the teacher and is demonstrated through thoughtful reflection before, during, and after activities are introduced at learning centers.



Looking, Listening, and Learning

The key is curiosity, and it is curiosity, not answers that we model. As we seek to know more about a child, we demonstrate the acts of observing, listening, questioning, and wondering. When we are curious about a child's words and our responses to those words, the child feels respected. The child is respected. What are the ideas that I have that are so interesting to the teacher? I must be somebody with good ideas.

—Vivian Paley (1986)

The practice of using learning centers with young children is more than a “set it up and let ‘em go” approach to learning. Early childhood educators are actively involved in the processes, tools, and benefits associated with the systematic use of classroom learning centers. Teachers make daily decisions that impact classroom environment, rules, and expectations for children's development. Paying close attention to children, using a variety of methods, makes it less likely that we will see what we want to see and miss (or ignore) what we do not want to see. Looking at learning center activities and listening closely to the players help teachers better understand young children's learning.

Documentation

Documentation means more than checklists, more than photographs, and more than pretty bulletin board displays. Documentation “is not just a teaching tool” but a way of “knowing and valuing children” (Turner & Wilson 2010, 5).

What separates documentation from ordinary assessment of children's learning is its relationship to process and products. In many cases, assessment is focused on an end goal or product without valuing the process. Early childhood researchers who routinely document children's and teachers' learning often compare the process to that of detectives or anthropologists. Teachers may use different techniques to observe and document children's learning, but the attitude they possess is similar. What they share is an underlying desire to learn something that will benefit the classroom culture and strengthen their teaching.

Italian educator Carlina Rinaldi (2001) has described the role of documentation in teaching and learning:

At the moment of documentation (observation and interpretation), the element of assessment enters the picture immediately, that is, in the context and during the time in which the experience (activity) takes place. It is not sufficient to make an abstract prediction that establishes what is significant—the elements of value necessary for learning to be achieved—before the documentation is actually carried out. It is necessary to interact with the action itself, with that which is revealed, defined, and perceived as truly significant, as the experience unfolds (85).

Looking, Listening, and Learning *(cont.)*

Documentation positions teachers as co-learners in the classroom through a thoughtful process of recording, analyzing, and sharing observations of young children. During learning center periods, teachers and children engage in activities that are documented in photos, video clips, and samples of children's work and conversation. This, in turn, has the potential to inspire further exploration.

When teachers try to capture a full, accurate essence of a child, they realize that it is impossible to record every single detail of any center activity. "Whether it is because a teacher is looking down at her paper while jotting down notes, or because a video camera is angled a certain way and therefore misses one corner of the classroom, it is crucial to note that no one observation is perfect" (Fiore 2011, 47). It is also true that no one observation can be expected to represent a child's full range of abilities. Several factors contribute to successful observation and documentation. All children and teachers are known to have "off" days, so any documentation process must include several opportunities to observe every child, using different tools to gather information.

A solid strategy for observing during learning center periods is useful for many reasons and prompts teachers to ask themselves questions such as:

- *What is a realistic amount of time that I will be able to observe children at learning centers each day?*
- *How can I prepare the classroom so that I may observe while children are engaged in activity?*
- *How will I reflect on and share my documentation?*
- *With whom will I share my thoughts and seek another perspective?*
- *What are the best methods for documenting young children's learning?*
- *How will I know if children's needs are being met?*

Different approaches to observing children and documenting learning require different amounts of time and materials. The more time needed, the more teachers must rely on a co-teacher or assistant to help with classroom activities while he or she observes.

A note of caution relating to various forms of written notes: These notes are taken as the events are filtered through the lens of one individual. While a teacher is busy writing, he or she may miss some action that therefore does not get included in the notes. Also, because teachers are human, we are all prone to biases based on our own life experiences. It sometimes happens that our notes reflect some of these biases. A useful strategy to minimize the presence and impact of bias is observing with a colleague from time to time. Two sets of eyes often notice different things, and the result of comparing two sets of notes means that teachers will discuss and negotiate interpretations in order to report the most accurate account of events.

Looking, Listening, and Learning *(cont.)*

Active Listening

One factor that contributes to successful observation is the understanding that it is a process that involves many different senses. A teacher most often records information using looking *and* listening. Carlina Rinaldi has written extensively about what she calls “the pedagogy of listening” (Rinaldi 2006, 65). Rinaldi defines listening with an eye (and ear) for detail, weaving the art and practice of listening into practical applications for teachers. When teachers and children use active listening, the teaching and learning relationship changes and children are empowered. The classroom changes from one in which the teacher notices the learning that takes place to one in which learning is created *and* noticed by all members of the group, thereby raising levels of understanding as a result (Fiore and Rosenquest 2010).

Technology

If a teacher chooses to use technology such as an audio recorder or video recorder, these tools can be set up in the classroom—on a table or on a tripod in a corner—and left to record while the teacher goes about the daily routine. At the end of the day, or even a few days later, the teacher can listen to or watch the recordings and see what he or she was unable to see during the moment-to-moment learning center activity. One huge benefit of recording children’s learning center activities is that digital audio and video allow teachers unlimited opportunities to revisit interesting moments by simply rewinding and playing again and again.

Not all technology requires electricity or batteries, however. At one time, a mechanical pencil was considered high-tech compared to a standard #2 Ticonderoga. Since all teachers agree that observation entails watching children and usually taking notes, the pace of many classroom settings has made the use of sticky notes a successful practice. Teachers keep pads in their pockets and scribble notes on the papers throughout the day. Teachers then stick those small papers into children’s folders to be revisited later. While this system does provide useful information about learning center activity and engagement, such sporadic note taking does not capture or present a full picture of a child engaged in a specific activity or at a particular learning center. Unless a teacher makes routine observation part of the daily classroom routine, observation records will likely be spotty. This can lead to misunderstandings about children’s behavior or academic performance, which can be harmful to a child’s self-image.



Looking, Listening, and Learning *(cont.)*

Connections to Standards

Teachers want to be effective, gathering rich data about children's abilities and responding to various levels of education standards. Sometimes, even the best intentions negatively impact children's learning experiences. A preschool teacher at a charter school once shared with me her concern that the school's director was using the state "guidelines" for preschool learning experiences as an assessment tool rather than for curriculum planning. Despite the document's clear statement that the guidelines were designed to focus on how teachers can help young children develop skills and knowledge and not designed to be developmental benchmarks for three- and four-year-olds, the experiences were being used as a checklist. Teachers were told to use the guidelines to evaluate children's abilities.

The teacher explained how one guideline under the Life Sciences section, which is linked to a preschool curriculum standard under "States of Matter," was being used as a checklist. Teachers were asked to check off the individual items as separate skills for each child instead of using the items as examples of experiences that help children develop the suggested skills laid out in the guideline:

- Explore, describe, and compare the properties of liquids and solids found in children's daily environment.
- Manipulate and describe materials such as water, sand, clay, and play dough.
- Explore ways materials can be changed by freezing/melting; dissolving (e.g., sugar crystals or gelatin in water); combining materials (e.g., earth + water = mud); physical force (e.g., pushing, pulling, pounding, stretching materials such as play dough or clay).
- Experiment with "magic mixtures" of common materials (e.g., flour, baking soda, cornstarch, water, salt, vinegar, food color), observe the results, then describe their experiments to others (Early Childhood Advisory Council 2003, 24).

The concern that she shared is important. It echoes a position shared by many early childhood teachers: as more time is required to teach children specific skills, less time is available for teachers to form relationships with and deep understandings of children. The benefits of documentation, including the opportunity to collaborate with children and peers, cannot be achieved with checklists.

Developmentally appropriate experiences should not be replaced with higher expectations and benchmarks that are not on par with young children's cognitive, social, and physical development. Using the example above, even if a kindergarten student is able to say what happens when vinegar is added to a baking soda mixture, he or she may not be able to use the fine-motor skills needed to successfully carry out the experiment. Instead, photographs or a running record for the time this child spends at the science center would provide more valuable information about his or her development. The more time a child spends exploring, playing, and developing self-confidence during activities like the ones that are provided in this book, the more true classroom practice is to the intention with which the experiences were designed. Through meaningful learning center activities, the foundation for children's lifetime love of learning is firmly established.

Looking, Listening, and Learning *(cont.)*

Reflection

Learning centers provide early childhood teachers opportunities to learn about their students' progress as well as their own professional and personal growth. When teachers engage in reflective practice, they observe children's learning in the moment, revisit moments of learning through the use of documentation, and plan for future classroom activities. The teacher's craft is constantly evolving in the same manner that children's learning evolves, and children and teachers become partners in the learning process. The following reflective practices represent different levels of reflection. Successful early childhood teachers engage in each level of reflection, alone and with others, to gain insights into their teaching and young children's learning.

Shallow Reflection

When teachers engage in shallow reflection, they often notice progress relating to certain goals. This is often the type of reflection that gets shared with families in the form of newsletters and bulletin boards posted inside and outside the classroom space. For example, a teacher might observe how many letters his or her preschoolers are able to recognize and then reflect on how he or she might keep students focused on the alphabet in small-group center activities. A second-grade teacher might notice that children were fidgety during a large-group discussion about the town library, and then reflect on ways to help students create a library in the Language and Literacy Center.

Applied Reflection

When teachers are able to make connections between theory and practice, they are able to make connections between their observations, educational theory, and design of new activities. For example, when a first-grade teacher uses learning centers to see what children know, want to know, and how they will go about learning something new, that teacher can observe children's learning and reflect upon his or her own success in helping students connect new information to previous knowledge. A preschool teacher might notice his or her three-year-olds getting cranky while waiting for him or her to pass out snack and reflect upon ways to provide opportunities for children to develop autonomy in the classroom.

Looking, Listening, and Learning (cont.)

Analytical Reflection

This type of reflection expands teachers' observations and reflections to consider issues outside their classrooms. Teachers engaged in analytical reflection recognize that their actions have consequences and that classroom practices are linked to larger social, political, and ethical issues. A preschool teacher might observe that some children get more turns at the computer than others even though they use an "eeny, meeny, miny, mo" song to choose who will go to each center. The teacher might engage the class in an activity to find an equitable, democratic practice for selecting daily learning center activities and reflect upon ways in which every child will have opportunities to make choices in the classroom. A second-grade teacher who observes students in leveled reading groups might reflect upon whether differentiated instruction within groups would provide nonnative English speakers with more opportunities for success at the learning centers. He or she might further reflect on ways to document students' successes in the classroom, and invite parent volunteers in to help take photos and record dialogue.

Self-Reflection

Putting it all together—a teacher uses the information he or she has collected and his or her awareness of the greater landscape for education to consider his or her own teaching practice. Some teachers use journals as a way to develop the habit of writing about classroom experiences. Teachers look for ways that their individual biases, beliefs, and values impact classroom practices. Such reflective practices are valuable to novice teachers as well as seasoned veterans. Many of Vivian Paley's books, such as *The Girl with the Brown Crayon* (1998), provide excellent examples of reflective practice and feature specific moments of self-reflection.

Looking and listening provide teachers and children with short- and long-term learning benefits. As a result of close observation, teachers may develop new empathy toward a specific child or a group of children. Empathy is as important for young children as it is for teachers, so modeling behaviors through the use of documentation helps create a classroom environment that is respectful to all members of the group. Inviting colleagues, parents and families, and children to be primary, active participants in classroom learning experiences establishes strong relationships that shape highly engaging classroom activities that ripple throughout the school, home environments, and broader community.

